FIG.1

GCCAGGCACC**ATG**GTGCAGAAGTCGCGCAACGGCGGCGTA[illegible]CCCGGCCCGAG
CGGGGAGAAGAAGCTGAAGGTGGGCTTCGTGGGGCTGGACCCCGGCGCGCCCGA
CTCCACCCGGGACGGGGCGCTGCTGATCGCCGGCTCCGAGGCCCCCAAGCGCGG
CAGCATCCTCAGCAAACCTCGCGCGGGCGGCGCGGGCGCCGGGAAGCCCCCCAA
GCGCAACGCCTTCTACCGCAAGCTGCAGAATTTCCTCTACAACGTGCTGGAGCGG
CCGCGCGGCTGGGCGTTCATCTACCACGCCTACGTGTTCCTCCTGGTTTTCTCCTG
CCTCGTGCTGTCTGTGTTTTCCACCATCAAGGAGTATGAGAAGAGCTCGGAGGGG
GCCCTCTACATCCTGGAAATCGTGACTATCGTGGTGTTTGGCGTGGAGTACTTCG
TGCGGATCTGGGCCGCAGGCTGCTGCTGCCGGTACCGTGGCTGGAGGGGGCGGC
TCAAGTTTGCCCGGAAACCGTTCTGTGTGATTGACATCATGGTGCTCATCGCCTC
CATTGCGGTGCTGGCCGCCGGCTCCCAGGGCAACGTCTTTGCCACATCTGCGCTC
CGGAGCCTGCGCTTCCTGCAGATTCTGCGGATGATCCGCATGGACCGGCGGGGA
GGCACCTGGAAGCTGCTGGGCTCTGTGGTCTATGCCCACAGCAAGGAGCTGGTC
ACTGCCTGGTACATCGGCTTCCTTTGTCTCATCCTGGCCTCGTTCCTGGTGTACTT
GGCAGAGAAGGGGGAGAACGACCACTTTGACACCTACGCGGATGCACTCTGGTG
GGGCCTGATCACGCTGACACCATTGGCTACGGGGACAAGTACCCCCAGACCTGG
AACGGCAGGCTCCTTGCGGCAACCTTCACCCTCATCGGTGTCTCCTTCTTCGCGCT
GCCTGCAGGCATCTTGGGGTCTGGGTTTGCCCTGAAGGTTCAGGAGCAGCACAG
GCAGAAGCACTTTGAGAAGAGGCGGAACCCGGCAGCAGGCCTGATCCAGTCGGC
CTGGAGATTCTACGCCACCAACCTCTCGCGCACAGACCTGCACTCCACGTGGCAG
TACTACGAGCGAACGGTCACCGTGCCCATGTACAGTTCGCAAACTCAAACCTACG
GGGCCTCCAGACTTATCCCCCCGCTGAACCAGCTGGAGCTGCTGAGGAACCTCAA
GAGTAAATCTGGACTCGCTTTCAGGAAGGACCCCCCGCCGGAGCCGTCTCCAAG
CCAGAAGGTCAGTTTGAAAGATCGTGTCTTCTCCAGCCCCCGAGGCGTGGCTGCC
AAGGGGAAGGGGTCCCCGCAGGCCCAGACTGTGAGGCGGTCACCCAGCGCCGAC
CAGAGCCTCGAGGACAGCCCCAGCAAGGTGCCCAAGAGCTGGAGCTTCGGGGAC
CGCAGCCGGGCACGCCAGGCTTTCCGCATCAAGGGTGCCGCGTCACGGCAGAAC
TCAGAAGAAGCAAGCCTCCCCGGAGAGGACATTGTGGATGACAAGAGCTGCCCC

TGCGAGTTTGTGACCGAGGACCTGACCCCGGGCCTCAAAGTCAGCATCAGAGCC
GTGTGTGTCATGCGGTTCCTGGTGTCCAAGCGGAAGTTCAAGGAGAGCCTGCGGC
CCTACGACGTGATGGACGTCATCGAGCAGTACTCAGCCGGCCACCTGGACATGCT
GTCCCGAATTAAGAGCCTGCAGTCCAGAGTGGACCAGATCGTGGGGCGGGGCCC
AGCGATCACGGACAAGGACCGCACCAAGGGCCCGGCCGAGGCGGAGCTGCCCG
AGGACCCCAGCATGATGGGACGGCTCGGGAAGGTGGAGAAGCAGGTCTTGTCCA
TGGAGAAGAAGCTGGACTTCCTGGTGAATATCTACATGCAGCGGATGGGCATCC
CCCCGACAGAGACCGAGGCCTACTTTGGGGCCAAAGAGCCGGAGCCGGCGCCGC
CGTACCACAGCCCGGAAGACAGCCGGGAGCATGTCGACAGGCACGGCTGCATTG
TCAAGATCGTGCGCTCCAGCAGCTCCACGGGCCAGAAGAACTTCTCGGCGCCCC
CGGCCGCGCCCCCTGTCCAGTGTCCGCCCTCCACCTCCTGGCAGCCACAGAGCCA
CCCGCGCCAGGGCCACGGCACCTCCCCCGTGGGGGACCACGGCTCCCTGGTGCG
CATCCCGCCGCCGCCTGCCCACGAGCGGTCGCTGTCCGCCTACGGCGGGGGCAA
CCGCGCCAGCATGGAGTTCCTGCGGCAGGAGGACACCCCGGGCTGCAGGCCCCC
CGAGGGGACCCTGCGGGACAGCGACACGTCCATCTCCATCCCGTCCGTGGACCA
CGAGGAGCTGGAGCGTTCCTTCAGCGGCTTCAGCATCTCCCAGTCCAAGGAGAA
CCTGGATGCTCTCAACAGCTGCTACGCGGCCGTGGCGCCTTGTGCCAAAGTCAGG
CCCTACATTGCGGAGGGAGAGTCAGACACCGACTCCGACCTCTGTACCCCGTGCG
GGCCCCCGCCACGCTCGGCCACCGGCGAGGGTCCCTTTGGTGACGTGGGCTGGG
CCGGGCCCAGGAAG**TGA**GGCGGCGCTGGGCCAGTGGACCCGCCCGCGGCCCTCC
TCAGCACGGTGCCTCCGAGGTTTTGAGGCGGGAACCCTCTGGGGCCCTTTTCTTA
CAGTAACTGAGTGTGGCGGGAAGGGTGGGCCCTGGAGGGGCCCATGTGGGCTGA
AGGATGGGGGCTCCTGGCAGTGACCTTTTACAAAAGTTATTTTCCAACAGGGGCT
GGAGGGCTGGGCAGGGCCCTGTGGCTCCAGGAGCAGCGTGCAGGAGCAAGGCTG
CCCTGTCCACTCTGCTCAGGGCCGCGGCCGACATCAGCCCGGTGTGAGGAGGGG
CGGGAGTGATGACGGGGTGTTGCCAGCGTGGCAACAGGCGGGGGGTTGTCTCAG
CCGAGCCCAGGGGAGGCACAAAGGGCAGGCCTGTTCCCTGAGGACCTGCGCAAA
GGGCGGGCCTGTTTGGTGAGGACCTGCGGCCTTGGGTC

Human Brain-Derived Potassium Channel cDNA · SEQ ID NO:1

FIG.2

ATGGTGCAGAAGTCGCGCAACGGCGGCGTATACCCCGGCCCGAGCGGGGAGAAG
AAGCTGAAGGTGGGCTTCGTGGGGCTGGACCCCGGCGCGCCCGACTCCACCCGG
GACGGGGCGCTGCTGATCGCCGGCTCCGAGGCCCCCAAGCGCGGCAGCATCCTC
AGCAAACCTCGCGCGGGCGGCGCGGGCGCCGGGAAGCCCCCCAAGCGCAACGC
CTTCTACCGCAAGCTGCAGAATTTCCTCTACAACGTGCTGGAGCGGCCGCGCGGC
TGGGCGTTCATCTACCACGCCTACGTGTTCCTCCTGGTTTTCTCCTGCCTCGTGCT
GTCTGTGTTTTCCACCATCAAGGAGTATGAGAAGAGCTCGGAGGGGGCCCTCTAC
ATCCTGGAAATCGTGACTATCGTGGTGTTTGGCGTGGAGTACTTCGTGCGGATCT
GGGCCGCAGGCTGCTGCTGCCGGTACCGTGGCTGGAGGGGGCGGCTCAAGTTTG
CCCGGAAACCGTTCTGTGTGATTGACATCATGGTGCTCATCGCCTCCATTGCGGT
GCTGGCCGCCGGCTCCCAGGGCAACGTCTTTGCCACATCTGCGCTCCGGAGCCTG
CGCTTCCTGCAGATTCTGCGGATGATCCGCATGGACCGGCGGGGAGGCACCTGG
AAGCTGCTGGGCTCTGTGGTCTATGCCCACAGCAAGGAGCTGGTCACTGCCTGGT
ACATCGGCTTCCTTTGTCTCATCCTGGCCTCGTTCCTGGTGTACTTGGCAGAGAAG
GGGGAGAACGACCACTTTGACACCTACGCGGATGCACTCTGGTGGGGCCTGATC
ACGCTGACCACCATTGGCTACGGGGACAAGTACCCCCAGACCTGGAACGGCAGG
CTCCTTGCGGCAACCTTCACCCTCATCGGTGTCTCCTTCTTCGCGCTGCCTGCAGG
CATCTTGGGGTCTGGGTTTGCCCTGAAGGTTCAGGAGCAGCACAGGCAGAAGCA
CTTTGAGAAGAGGCGGAACCCGGCAGCAGGCCTGATCCAGTCGGCCTGGAGATT
CTACGCCACCAACCTCTCGCGCACAGACCTGCACTCCACGTGGCAGTACTACGAG
CGAACGGTCACCGTGCCCATGTACAGTTCGCAAACTCAAACCTACGGGGCCTCCA
GACTTATCCCCCCGCTGAACCAGCTGGAGCTGCTGAGGAACCTCAAGAGTAAAT
CTGGACTCGCTTTCAGGAAGGACCCCCCGCCGGAGCCGTCTCCAAGCCAGAAGG
TCAGTTTGAAAGATCGTGTCTTCTCCAGCCCCCGAGGCGTGGCTGCCAAGGGGAA
GGGGTCCCCGCAGGCCCAGACTGTGAGGCGGTCACCCAGCGCCGACCAGAGCCT
CGAGGACAGCCCCAGCAAGGTGCCCAAGAGCTGGAGCTTCGGGGACCGCAGCCG
GGCACGCCAGGCTTTCCGCATCAAGGGTGCCGCGTCACGGCAGAACTCAGAAGA

AGCAAGCCTCCCCGGAGAGGACATTGTGGATGACAAGAGCTGCCCCTGCGAGTT
TGTGACCGAGGACCTGACCCCGGGCCTCAAAGTCAGCATCAGAGCCGTGTGTGT
CATGCGGTTCCTGGTGTCCAAGCGGAAGTTCAAGGAGAGCCTGCGGCCCTACGA
CGTGATGGACGTCATCGAGCAGTACTCAGCCGGCCACCTGGACATGCTGTCCCGA
ATTAAGAGCCTGCAGTCCAGAGTGGACCAGATCGTGGGGCGGGGCCCAGCGATC
ACGGACAAGGACCGCACCAAGGGCCCGGCCGAGGCGGAGCTGCCCGAGGACCC
CAGCATGATGGGACGGCTCGGGAAGGTGGAGAAGCAGGTCTTGTCCATGGAGAA
GAAGCTGGACTTCCTGGTGAATATCTACATGCAGCGGATGGGCATCCCCCCGACA
GAGACCGAGGCCTACTTTGGGGCCAAAGAGCCGGAGCCGGCGCCGCCGTACCAC
AGCCCGGAAGACAGCCGGGAGCATGTCGACAGGCACGGCTGCATTGTCAAGATC
GTGCGCTCCAGCAGCTCCACGGGCCAGAAGAACTTCTCGGCGCCCCCGGCCGCG
CCCCCTGTCCAGTGTCCGCCCTCCACCTCCTGGCAGCCACAGAGCCACCCGCGCC
AGGGCCACGGCACCTCCCCCGTGGGGGACCACGGCTCCCTGGTGCGCATCCCGC
CGCCGCCTGCCCACGAGCGGTCGCTGTCCGCCTACGGCGGGGGCAACCGCGCCA
GCATGGAGTTCCTGCGGCAGGAGGACACCCCGGGCTGCAGGCCCCCCGAGGGGA
CCCTGCGGGACAGCGACACGTCCATCTCCATCCCGTCCGTGGACCACGAGGAGC
TGGAGCGTTCCTTCAGCGGCTTCAGCATCTCCCAGTCCAAGGAGAACCTGGATGC
TCTCAACAGCTGCTACGCGGCCGTGGCGCCTTGTGCCAAAGTCAGGCCCTACATT
GCGGAGGGAGAGTCAGACACCGACTCCGACCTCTGTACCCCGTGCGGGCCCCCG
CCACGCTCGGCCACCGGCGAGGGTCCCTTTGGTGACGTGGGCTGGGCCGGGCCC
AGGAAGTGA

Human Brain-Derived Potassium Channel DNA Structural Region · SEQ ID NO:2

FIG.3

MVQKSRNGGVYPGPSGEKKLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSILSKP
RAGGAGAGKPPKRNAFYRKLQNFLYNVLERPRGWAFIYHAYVFLLVFSCLVLSVFS
TIKEYEKSSEGALYILEIVTIVVFGVEYFVRIWAAGCCCRYRGWRGRLKFARKPFCVI
DIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIRMDRRGGTWKLLGSVVYAH
SKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGYGDKYP
QTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQS
AWRFYATNLSRTDLHSTWQYYERTVTVPMYSSQTQTYGASRLIPPLNQLELLRNLKS
KSGLAFRKDPPPEPSPSQKVSLKDRVFSSPRGVAAKGKGSPQAQTVRRSPSADQSLE
DSPSKVPKSWSFGDRSRARQAFRIKGAASRQNSEEASLPGEDIVDDKSCPCEFVTEDL
TPGLKVSIRAVCVMRFLVSKRKFKESLRPYDVMDVIEQYSAGHLDMLSRIKSLQSRV
DQIVGRGPAITDKDRTKGPAEAELPEDPSMMGRLGKVEKQVLSMEKKLDFLVNIYM
QRMGIPPTETEAYFGAKEPEPAPPYHSPEDSREHVDRHGCIVKIVRSSSSTGQKNFSAP
PAAPPVQCPPSTSWQPQSHPRQGHGTSPVGDHGSLVRIPPPPAHERSLSAYGGGNRAS
MEFLRQEDTPGCRPPEGTLRDSDTSISIPSVDHEELERSFSGFSISQSKENLDALNSCYA
AVAPCAKVRPYIAEGESDTDSDLCTPCGPPPRSATGEGPFGDVGWAGPRK*

Human Brain-Derived Potassium Channel Peptide [Residue Sequence] · SEQ ID NO:3

FIG.4

CGCGGAGCGAGGTGGCCGCAGCGTCTCCGCGCGCGGCCCAAGCCCGGCAGGAGT
GCGGAACCGCCGCCTCGGCCATGCGGCTCCCGGCCGGGGGGCCTGGGCTGGGGC
CCGCGCCGCCCCCCGCGCTCCGCCCCCGCTGAGCCTGAGCCCGACCCGGGGCGC
CTCCCGCCAGGCACC**ATG**GTGCAGAAGTCGCGCAACGGCGGCGTATACCCCGGC
CCGAGCGGGGAGAAGAAGCTGAAGGTGGGCTTCGTGGGGCTGGACCCCGGCGCG
CCCGACTCCACCCGGGACGGGGCGCTGCTGATCGCCGGCTCCGAGGCCCCCAAG
CGCGGCAGCATCCTCAGCAAACCTCGCGCGGGCGGCGCGGGCGCCGGGAAGCCC
CCCAAGCGCAACGCCTTCTACCGCAAGCTGCAGAATTTCCTCTACAACGTGCTGG
AGCGGCCGCGCGGCTGGGCGTTCATCTACCACGCCTACGTGTTCCTCCTGGTTTT
CTCCTGCCTCGTGCTGTCTGTGTTTTCCACCATCAAGGAGTATGAGAAGAGCTCG
GAGGGGGCCCTCTACATCCTGGAAATCGTGACTATCGTGGTGTTTGGCGTGGAGT
ACTTCGTGCGGATCTGGGCCGCAGGCTGCTGCTGCCGGTACCGTGGCTGGAGGG
GGCGGCTCAAGTTTGCCCGGAAACCGTTCTGTGTGATTGACATCATGGTGCTCAT
CGCCTCCATTGCGGTGCTGGCCGCCGGCTCCCAGGGCAACGTCTTTGCCACATCT
GCGCTCCGGAGCCTGCGCTTCCTGCAGATTCTGCGGATGATCCGCATGGACCGGC
GGGGAGGCACCTGGAAGCTGCTGGGCTCTGTGGTCTATGCCCACAGCAAGGAGC
TGGTCACTGCCTGGTACATCGGCTTCCTTTGTCTCATCCTGGCCTCGTTCCTGGTG
TACTTGGCAGAGAAGGGGGAGAACGACCACTTTGACACCTACGCGGATGCACTC
TGGTGGGGCCTGATCACGCTGACCACCATTGGCTACGGGGACAAGTACCCCCAG
ACCTGGAACGGCAGGCTCCTTGCGGCAACCTTCACCCTCATCGGTGTCTCCTTCT
TCGCGCTGCCTGCAGGCATCTTGGGGTCTGGGTTTGCCCTGAAGGTTCAGGAGCA
GCACAGGCAGAAGCACTTTGAGAAGAGGCGGAACCCGGCAGCAGGCCTGATCCA
GTCGGCCTGGAGATTCTACGCCACCAACCTCTCGCGCACAGACCTGCACTCCACG
TGGCAGTACTACGAGCGAACGGTCACCGTGCCCATGTACAGGTACCGCCGCCGG
GCACCTGCCACCAAGCAACTGTTTCATTTTTTATTTTCCATTTGTTCT**TAA**ACCCC
ACTTTTTGTTGTTCATTATTTTGATTGATTTTTTTTCTTTAAAATGTATTTTTCACA
AAGG

Yokoyama *et al* cDNA Sequence (HNSPC) (Genbank accession # D82346)

SEQ ID NO:4

5

FIG.5

MVQKSRNGGVYPGPSGEKKLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSILSKP
RAGGAGAGKPPKRNAFYRKLQNFLYNVLERPRGWAFIYHAYVFLLVFSCLVLSVFS
TIKEYEKSSEGALYILEIVTIVVFGVEYFVRIWAAGCCCRYRGWRGRLKFARKPFCVI
DIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIRMDRRGGTWKLLGSVVYAH
SKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGYGDKYP
QTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQS
AWRFYATNLSRTDLHSTWQYYERTVTVPMYRYRRRAPATKQLFHFLFSICS*

Yokoyama *et al* amino acid sequence (HNSPC) · SEQ ID NO:5

FIG.6

METRGSRLTGGQGRVYNFLERPTGWKCFVYHFAVFLIVLVCLIFSVLSTIEQYAALAT
GTLFWMEIVLVVFFGTEYVVRLWSAGCRSKYVGLWGRLRFARKPISIIDLIVVVASM
VVLCVGSKGQVFATSAIRGIRFLQILRMLHVDRQGGTWRLLGSVVFIHRQELITTLYI
GFLGLIFSSYFVYLAEKDAVNESGRVEFGSYADALWWGVVTVTTIGYGDKVPQTWV
GKTIASCFSVFAISFFALPAGILGSGFALKVQQKQRQKHFNRQIPAAASLIQTAWRCY
AAENPDSSTWKIYIRKAPRSHTLLSPSPKPKKSVVVKKKKFKLDKDNGVTPGEKMLT
VPHITCDPPEERRLDHFSVDGYDSSVRKSPTLLEVSMPHFMRTNSFAEDLDLEGETLL
TPITHISQLREHHRATIKVIRRMQYFVAKKKFQQARKPYDVRDVIEQYSQGHLNLMV
RIKELQRRLDQSIGKPSLFISVSEKSKDRGSNTIGARLNRVEDKVTQLDQRLALITDML
HQLLSLHGGSTPGSGGPPREGGAHITQPCGSGGSVDPELFLPSNTLPTYEQLTVPRRG
PDEGS

Sanguinetti *et al* amino acid sequence (HKvLQT1) (Genbank Accession U40990, U71077)

SEQ ID NO:6

FIG.7

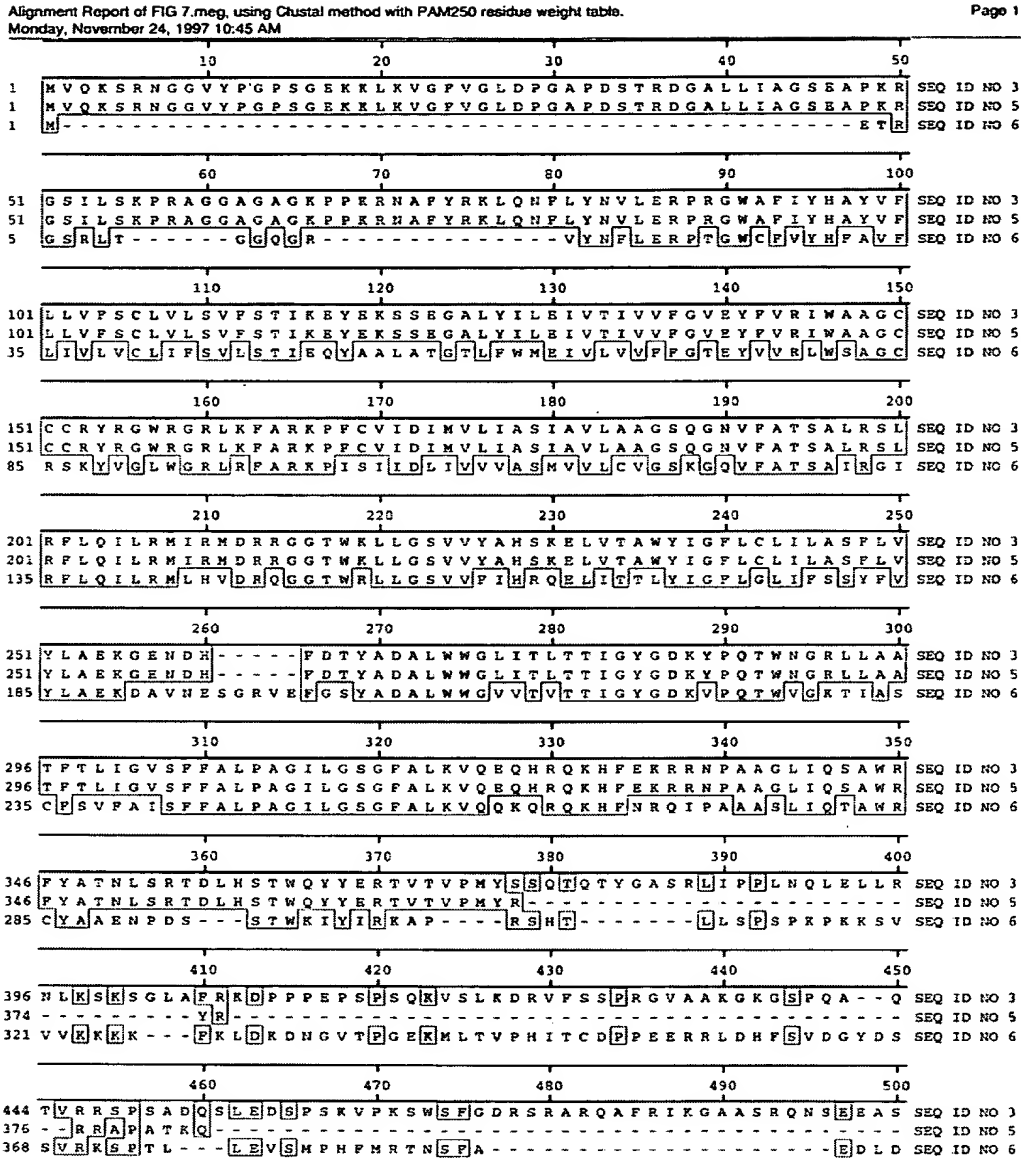

Alignment Report of FIG 7.meg, using Clustal method with PAM250 residue weight table.
Monday, November 24, 1997 10:45 AM
Page 1
SEQ ID NO 3
SEQ ID NO 5
SEQ ID NO 6

FIG.7 (p.2)

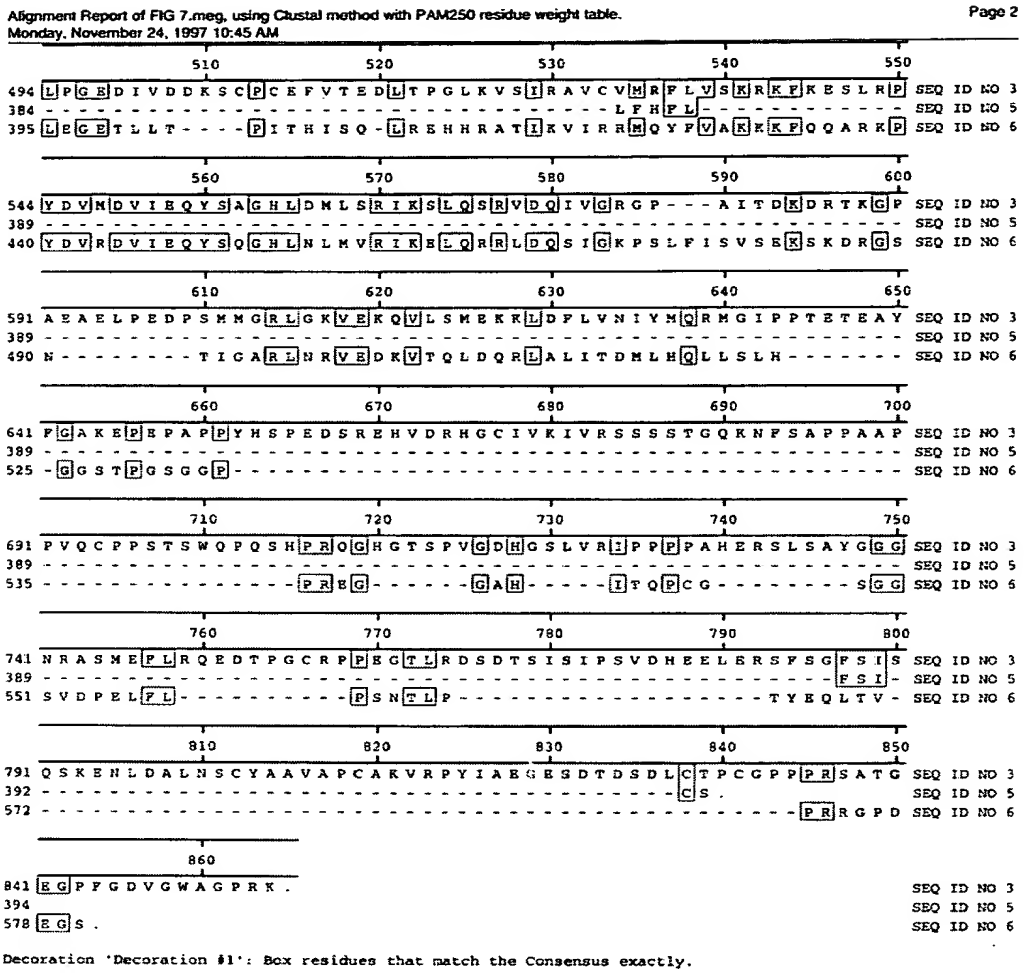
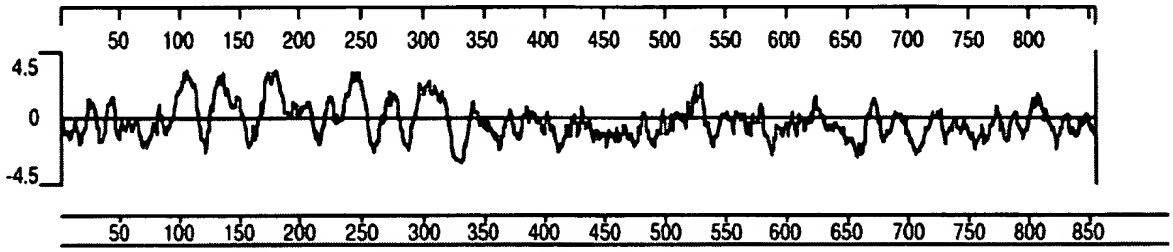
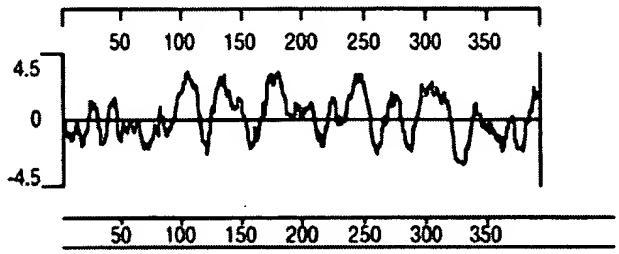

Alignment Report of FIG 7.meg, using Clustal method with PAM250 residue weight table.
Monday, November 24, 1997 10:45 AM
Page 2
510 520 530 540 550
494 LPGEDIVDDKSCPCEFVTEDLTPGLKVSIRAVCVMRFLVSKRKFKESLRP SEQ ID NO 3
384 ---------- LFHFL---------- SEQ ID NO 5
395 LEGETLLT----PITHISQ-LREHHRATIKVIRRMQYFVAKKKFQQARKP SEQ ID NO 6
560 570 580 590 600
544 YDVMDVIEQYSAGHLDMLSRIKSLQSRVDQIVGRGP---AITDKDRTKGP SEQ ID NO 3
389 ---------- SEQ ID NO 5
440 YDVRDVIEQYSQGHLNLMVRIKSLQRRLDQSIGKPSLFISVSEKSKDRGS SEQ ID NO 6
610 620 630 640 650
591 AEAELPEDPSMMGRLGKVEKQVLSMEKRLDFLVNIYMQRMGIPPTETEAY SEQ ID NO 3
389 ---------- SEQ ID NO 5
490 N---------TIGARLNRVEDKVTQLDQRLALITDMLHQLLSLH------- SEQ ID NO 6
660 670 680 690 700
641 FGAKEPEPAPPYHSPEDSREHVDRHGCIVKIVRSSSSTGQKNFSAPPAAP SEQ ID NO 3
389 ---------- SEQ ID NO 5
525 -GGSTPGSGGP---------- SEQ ID NO 6
710 720 730 740 750
691 PVQCPPSTSWQPQSHPRQGHGTSPVGDHGSLVRIPPPPAHERSLSAYGGG SEQ ID NO 3
389 ---------- SEQ ID NO 5
535 ----------PREG------GAH-----ITQPCG---------SGG SEQ ID NO 6
760 770 780 790 800
741 NRASMEFLRQEDTPGCRPPEGTLRDSDTSISIPSVDHEELERSFSGFSIS SEQ ID NO 3
389 ----------FSI- SEQ ID NO 5
551 SVDPELFL----------PSNTLP----------TYEQLTV- SEQ ID NO 6
810 820 830 840 850
791 QSKENLDALNSCYAAVAPCAKVRPYIAEGESDTDSDLCTPCGPPPRSATG SEQ ID NO 3
392 ----------CS. SEQ ID NO 5
572 ----------PRRGPD SEQ ID NO 6
860
841 EGPFGDVGWAGPRK. SEQ ID NO 3
394 SEQ ID NO 5
578 EGS. SEQ ID NO 6
Decoration 'Decoration #1': Box residues that match the Consensus exactly.

FIG.8

SEQ ID NO 3.pad
Monday, November 24, 1997 11:22 AM



SEQ ID NO 5.pad
Monday, November 24, 1997 11:21 AM



SEQ ID NO 6.pad
Monday, November 24, 1997 11:21 AM

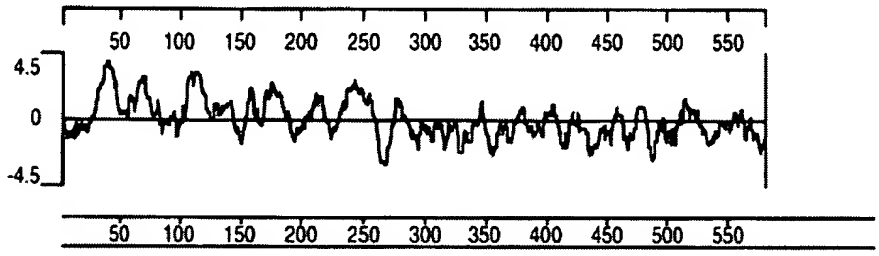
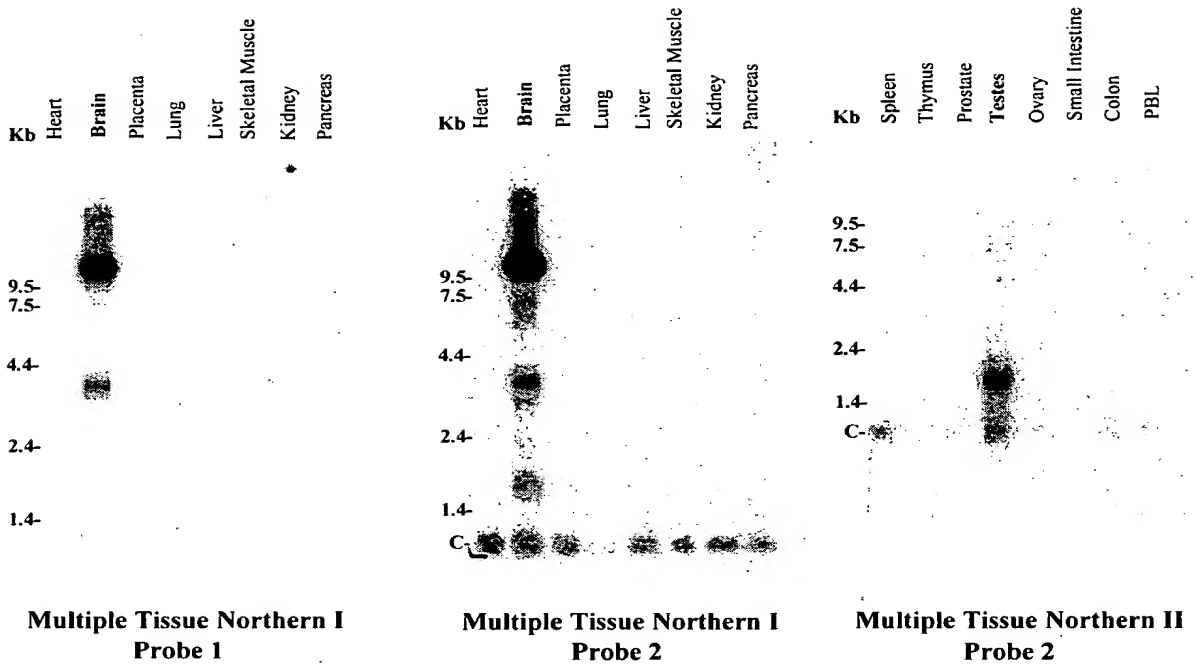


FIG.9



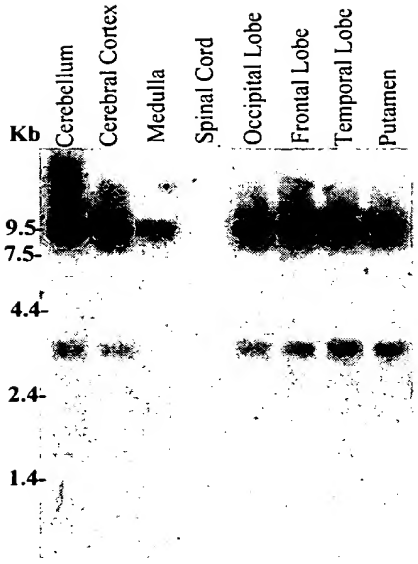
Multiple Tissue Northern I Probe 1

Multiple Tissue Northern I Probe 2

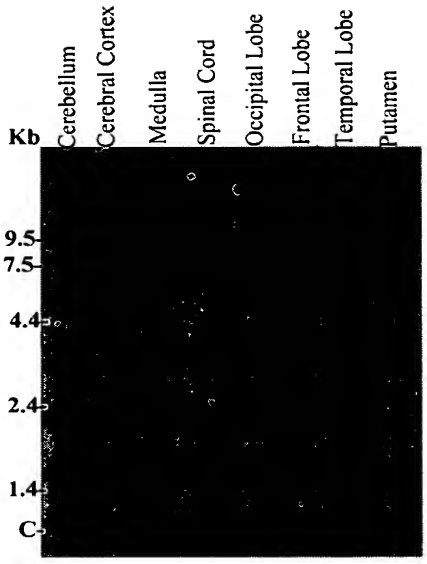
Multiple Tissue Northern II Probe 2

PBL=Peripheral Blood Leukocytes
C=700 bp housekeeping cyclophilin transcript, used for normalization of RNA loading

FIG.10



Human Brain Northern Probe 1

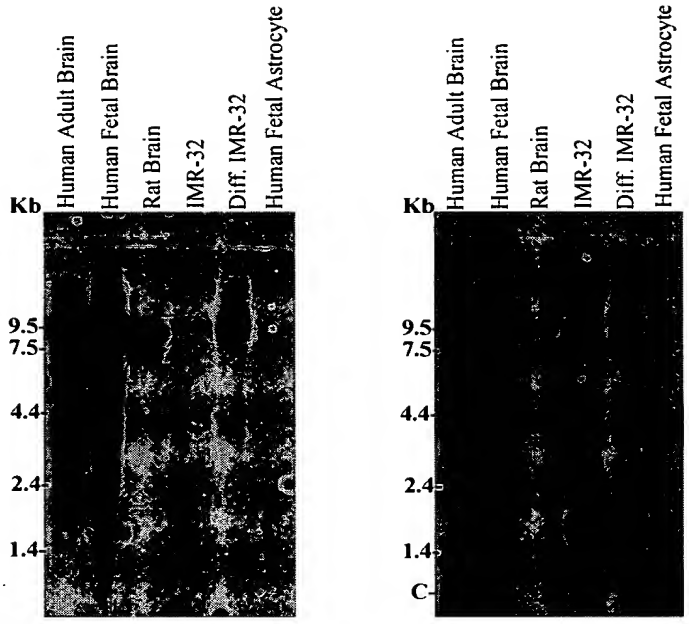


Human Brain Northern Probe 2

C=700 bp housekeeping cyclophilin transcript, used for normalization of RNA loading

FIG.11

5



Brain Tissue and Cell Panel Northerns

Probe 1 **Probe 2**

C=700 bp housekeeping cyclophilin transcript, used for normalization of RNA loading

FIG.12

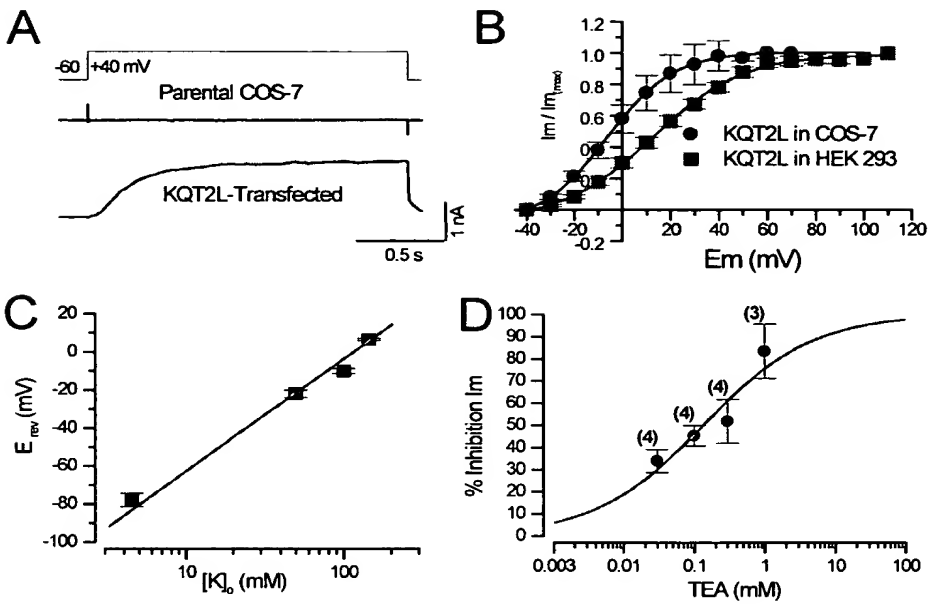

A
-60
+40 mV
Parental COS-7
KQT2L-Transfected
1 nA
0.5 s
B
Im / Im(max)
KQT2L in COS-7
KQT2L in HEK 293
Em (mV)
C
E rev (mV)
[K]o (mM)
D
% Inhibition Im
(4)
(4)
(4)
(3)
TEA (mM)

FIG.13

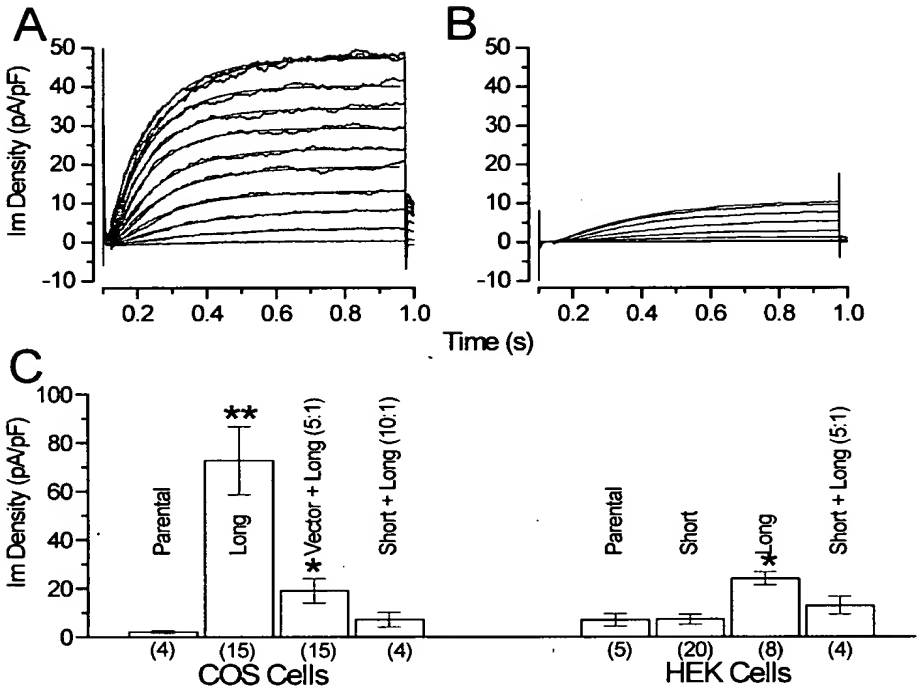

A
B
C
Im Density (pA/pF)
Time (s)
Parental
Long
Vector + Long (5:1)
Short + Long (10:1)
Short
Long
Short + Long (5:1)
COS Cells
HEK Cells
**
*

FIG.14

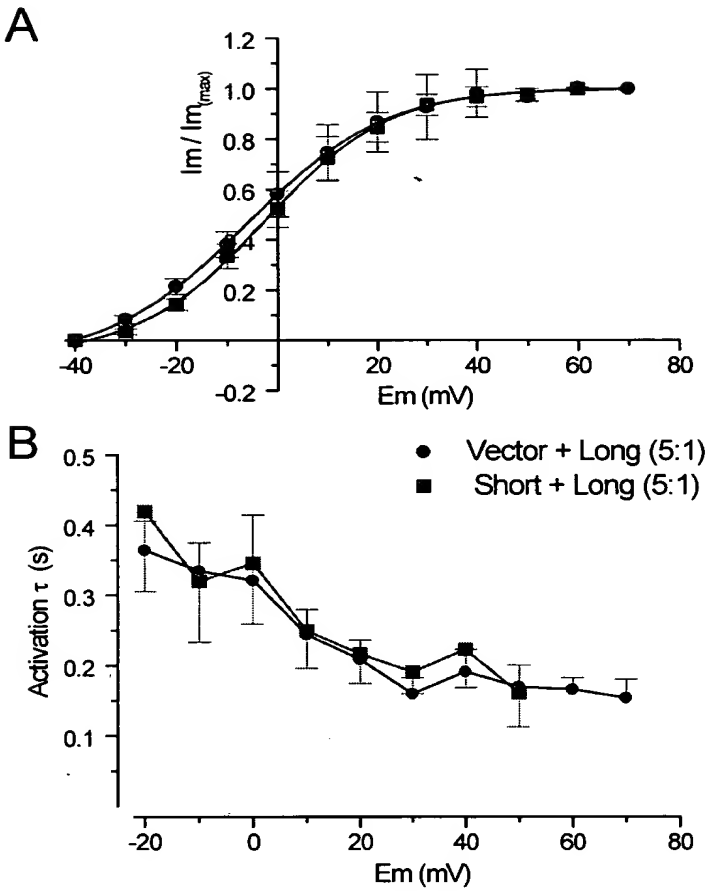

A
1.2
1.0
0.8
0.6
0.2
-0.2
Im / Im(max)
-40
-20
20
40
60
80
Em (mV)
B
Vector + Long (5:1)
Short + Long (5:1)
0.5
0.4
0.3
0.2
0.1
Activation τ (s)
-20
0
20
40
60
80
Em (mV)

FIG.15

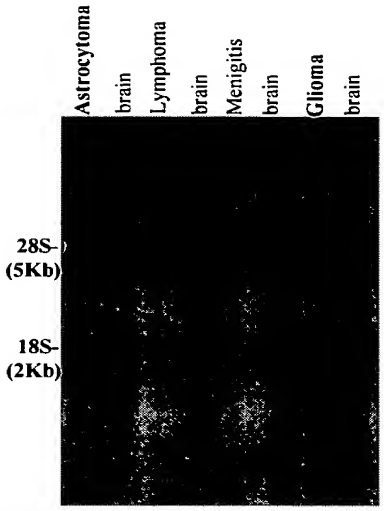

Astrocytoma
brain
Lymphoma
brain
Menigitis
brain
Glioma
brain
28S-
(5Kb)
18S-
(2Kb)

FIG.16

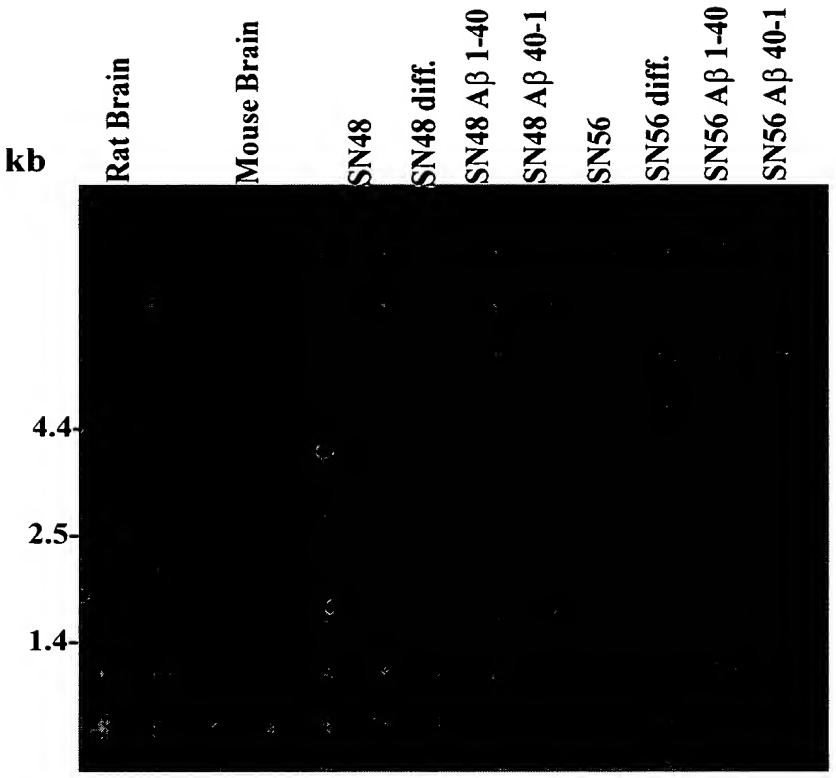

kb
Rat Brain
Mouse Brain
SN48
SN48 diff.
SN48 Aβ 1-40
SN48 Aβ 40-1
SN56
SN56 diff.
SN56 Aβ 1-40
SN56 Aβ 40-1
4.4-
2.5-
1.4-

FIG.17

MGLKARRAAGAAGGGGGEGGGGGGGAANPAGGDSAVAGDEERKVGLAPGDVEQ
VTLALGTGADKDGTLLLEGGGREEGQRRTPQGIGLLAKTPLSRPVKRNNAKYRRIQT
LIYDALERPRGWALLYHALVFLIVLGCLILAVLTTFKEYETVSGDWLLVPETFAIFIFG
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SEQ ID NO:7 · Rat KvQT3 (GENBANK Accession Number: AF087454)

GDVEQVTLALGAGADKDGTLLLEGGGRDEGQRRTPQGIGLLAKTPLSRPVKRNNAK
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SEQ ID NO:8 · Human KvQT3 (partial)